

Influence of Lecithin from Different Sources on Crystallization Properties of Non-Trans Fat

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Abstract : Soybean seeds are the main source of lecithin in confectionery industry in Serbia and elsewhere. The extensive production of sunflower and rapeseed oil opens the possibility of using lecithin from these sources, as an alternative. Also, the development of functional foods dictates the use of edible fats with no undesirable trans fatty acids, obtained by fractionation and transesterification instead of common hydrogenation process. Crystallization properties of nontrans vegetable fat with the addition of soybean, sunflower and rapeseed lecithin were investigated in this paper. NMR technique was used for measuring the solid fat content (SFC) of fats at different temperatures, as well as for crystallization rate under static conditions. Also, the possibility of applying Gompertz function to define kinetics of crystallization was investigated.

Keywords : non-trans fat, lecithin, fatty acids, SFC

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